

MAR 16 2005

<b>FACSIMILE TRANSMITTAL FORM</b>		Application Number	10/734682
		Filing Date	December 12, 2003
		First Named Inventor	Bedingham, William
		Art Unit	1743
		Examiner Name	
Fax: 703-872-9306	Attorney Docket Number	59072US002	
Total Number of Pages In This Submission: 9			
Date: March 16, 2005		Attorney for Applicant: Robert W. Sprague	

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Issue Fee Transmittal <input type="checkbox"/> Amendment Transmittal	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/Declaration(s)	<input type="checkbox"/> Petition to Convert a Provisional Application	<input type="checkbox"/> Appeal Communication to Technology Center (Appeal Notice, Brief, Reply Brief)
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<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosures: International Search Report
<input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR § 1.52 or 1.53	<input type="checkbox"/> Request for Refund <input type="checkbox"/> Request for Continued Examination (RCE) Transmittal	
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Customer Number

**MAR 16 2005**

Patent  
Case No.: 59072US002

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

First Named Inventor: **BEDINGHAM, WILLIAM**Application No.: **10/734682** Group Art Unit: **1743**Filed: **December 12, 2003** Examiner: **Unknown**Title: **SAMPLE MIXING ON A MICROFLUIDIC DEVICE**

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING OR TRANSMISSION (37 CFR § 1.8(a))**

I hereby certify that this correspondence is being:

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Date

Signed by: Judy L. Bronson

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

Copies of any cited foreign patents, foreign publications, non-patent literature documents, and any pending U.S. applications filed before June 30, 2003, are enclosed. Copies of any pending U.S. applications filed after June 30, 2003 that can be accessed on the USPTO's IFW system are not enclosed as per USPTO Waiver dated September 21, 2004. Copies of any U.S. patents and published U.S. patent applications are not enclosed.

Under 37 CFR § 1.97(e)(1), I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement.

Application No.: 10/734682Case No.: 59072US002

Under 37 CFR § 1.704(d), I hereby state that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty (30) days prior to the filing of this Information Disclosure Statement.

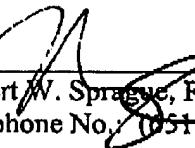
A copy of the Search Report from a foreign counterpart application is enclosed.

It is believed that no fee is due; however, in the event a fee is required, please charge the fee to Deposit Account No. 13-3723.

Respectfully submitted,

March 16, 2005  
Date

By:

  
Robert W. Sprague, Reg. No.: 30,497  
Telephone No.: (651) 733-4247

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833

<b>Substitute for form 1449A/PTO (modified)</b>		<b>Application Number</b>	<b>10/734682</b>
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		<b>Filing Date</b>	<b>December 12, 2003</b>
(Use as many sheets as necessary)		<b>First Named Inventor</b>	<b>Bedingham, William</b>
Page 1 of 1		<b>Art Unit</b>	<b>1743</b>
		<b>Examiner Name</b>	
		<b>Attorney Case Number</b>	<b>59072US002</b>

<b>U.S. Patent Documents</b>					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
	A1	US- 3,873,217 A	03-26-1975	Anderson et al	
	A2	US- 5,912,134 A	06-15-1999	Shartle et al	
	A3	US-			
	A4	US-			
	A5	US-			
	A6	US-			
	A7	US-			
	A8	US-			
	A9	US-			
	A10	US-			
	A11	US-			

<b>Foreign Patent Documents</b>							
Exam. Init.*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation (Check if yes)
		Ctry. Code	Number-KindCode (if known)				
	B1						
	B2						
	B3						
	B4						
	B5						
	B6						
	B7						

<b>OTHER DOCUMENTS</b>					
Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			Translation (Check if yes)
	C1				
	C2				
	C3				

* <b>Examiner:</b>	<b>Date Considered:</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>59072W0003</b>	<b>FOR FURTHER ACTION</b>	see Form PCT/ISA/220 as well as, where applicable, Item 5 below.
International application No. <b>PCT/US2004/034749</b>	International filing date (day/month/year) <b>20/10/2004</b>	(Earliest) Priority Date (day/month/year) <b>12/12/2003</b>
Applicant <b>3M INNOVATIVE PROPERTIES COMPANY</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2.  Certain claims were found unsearchable (See Box II).

3.  Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US2004/034749

**Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)**

Mixing structures for use on sample processing devices are disclosed. The mixing structures include one or more mixing chambers (60) in fluid communication with a process chamber (40), such that changing the rotational speed of the sample processing device forces sample material into and out of the mixing chamber to achieve mixing of the sample material. The mixing chambers are in fluid communication with the process chambers through mixing ports (62) that are located on the distal sides of the process chambers with respect to the axis about which the sample processing device is rotated.

## INTERNATIONAL SEARCH REPORT

International Application No PCT/US2004/034749
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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B01F13/00 B01F15/02 B01L3/00
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According to International Patent Classification (IPC) or to both national classification and IPC
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B. FIELDS SEARCHED
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Minimum documentation searched (classification system followed by classification symbols) IPC 7 B01F B01L G01N
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
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Electronic data base consulted during the International search (name of data base and, where practical, search terms used)
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EPO-Internal, WPI Data, PAJ
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C. DOCUMENTS CONSIDERED TO BE RELEVANT
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Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 873 217 A (ANDERSON ET AL) 25 March 1975 (1975-03-25)  column 1, line 50 - line 67 column 2, line 23 - line 57 figures 1-3	1-10, 21-25, 27-29
A	US 2003/138779 A1 (PARTHASARATHY RANJANI V ET AL) 24 July 2003 (2003-07-24) cited in the application	11-20, 26
X	paragraph '0086! - paragraph '0088! paragraph '0091! figures 2-4	1-4, 6-10, 21-25, 27-29
A	----- ----- -----	5, 11-20, 26
		-/-

<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.
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<input checked="" type="checkbox"/> Patent family members are listed in annex.
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\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the International search
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24 February 2005
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Date of mailing of the International search report
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03/03/2005
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016
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Real Cabrera, R
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/034749

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 912 134 A (SHARTLE ET AL) 15 June 1999 (1999-06-15)  column 7, line 12 - line 33 column 8, line 16 - line 29 column 8, line 61 - line 63 figures 2,4-7 -----	1-3, 5-10, 21-25, 27-29
A		4,11-20, 26

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No PCT/US2004/034749
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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 3873217	A	25-03-1975	AT AU BE CA CH DE DK ES FR GB IL IT JP NL SE SE SU	607374 A 7154574 A 817703 A1 1006378 A1 573596 A5 2435616 A1 395474 A 428453 A1 2238929 A1 1476744 A 45316 A 1019737 B 50044881 A 7409604 A 402026 B 7409540 A 574170 A3		15-05-1979 29-01-1976 18-11-1974 08-03-1977 15-03-1976 06-02-1976 03-03-1975 16-04-1977 21-02-1975 16-06-1977 31-05-1977 30-11-1977 22-04-1975 28-01-1975 12-06-1978 27-01-1975 25-09-1977
US 2003138779	A1	24-07-2003	AU CA EP WO	2002366944 A1 2469980 A1 1461155 A2 03054509 A2		09-07-2003 03-07-2003 29-09-2004 03-07-2003
US 5912134	A	15-06-1999	US AT AU AU CA DE DE EP JP WO	5627041 A 208902 T 700750 B2 3462795 A 2198854 A1 69523931 D1 69523931 T2 0778950 A1 10505672 T 9607919 A1		06-05-1997 15-11-2001 14-01-1999 27-03-1996 14-03-1996 20-12-2001 29-08-2002 18-06-1997 02-06-1998 14-03-1996